## Case Study: IAC Acoustics Anechoic Chamber



Cummins Power Generation Fridley, Minnesota



## IAC Acoustics Provides Turn-key Research & Development Center for Cummins Power

Since 1949 IAC Acoustics has pioneered in the design, manufacture, and installation of turn-key test facilities around the world. IAC completed a turn-key "state-ofthe-art" Research and Development Center for Cummins Power Generation. The new anechoic chamber included one hemi-anechoic chamber, one reverberation room, one engine test cell, one control room and one preparation area for Cummins at their manufacturing and testing plant in Fridley, Minnesota. The project utilized all of IAC's extensive acoustic design and manufacturing expertise across a whole range of product areas, including acoustic louvers, silencers, acoustic panels, AHUs, Metadyne<sup>™</sup> wedges and acoustic doors.

Cummins Power Generation is one of the largest manufacturers of diesel and gas generator sets in the world. This multi-million dollar project will both aid manufacturing and R&D at this site, with generator sets across the United States and overseas. Located right in the heart of the local community in Fridley, Minnesota, the company's previous open air testing facility, was causing noise nuisance. The new facility eliminates virtually all environmental impact by keeping noise in, and also provides a perfect "repeatable" sound testing environment keeping wind and weather interference out.

The project which as taken just thirteen months to complete included a hemi-anechoic chamber designed with 50 Hz cut off to meet both USA and UK regulations, a control room where all of the air handling systems can be managed by one person plus office space for acoustic testing operatives, an open plan meeting area and a small anechoic testing room for smaller engines.

The project named "Project Sonitus Acoustical Testing Center" by Cummins Power Generation is the largest facility of its kind in the world, meeting the following ISO 3745 - 50 Hz at 33 ft., ISO 3744 - 50 Hz over 6,458 sq. ft., ISO 6798 and ISO 8528-10 in addition to EED 200/14 and achieving a background noise level of NC20.

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